Maine State Planning Office

Waste Management & Recycling Program

Fact Sheet: Household Hazardous Waste

About 1-2 % of the municipal solid waste generated the U.S. meets the EPA definition of hazardous waste. The average American generates about 15 pounds of household hazardous waste in a year. Because household hazardous waste is exempt from federal and state hazardous waste regulation, most of it goes to local disposal facilities, enters septic systems and ends up in sewage treatment plants, or is dumped into storm drains or onto the ground. These disposal methods pose environmental and public health problems.

Until recently, we did not pay much attention to household hazardous waste. Few realized the dangerous properties of many of the products we use or we thought the amount was so small it wouldn't matter. A 1989 EPA study, however, concluded that nickel-cadmium batteries, the kind found in small household appliances were the largest source of cadmium (a heavy metal that may cause lung damage) in the municipal waste stream (Source: Garbage Magazine, March/April, 1990, pp 44-48).

In addition, home storage of wastes poses safety and health hazards for the homeowner. Many common household products have hazardous properties. Products that exist in high concentration, such as aerosols and polishes are highly volatile. They can contaminate indoor air and linger for days after use. The health effect of these substances range from headache, dizziness and nausea, to cancer.

What makes a substance hazardous?

A material is hazardous if it has one or more of the following characteristics:

Characteristic	Effect	Types of Products
Corrosive/caustic	burns/destroys living tissue	drain cleaners, toilet bowl cleaners, chlorine bleach, rug cleaners
Toxic/poisonous	causes injury/death through ingestion, inhalation, absorption; some cause cancer or fetal harm	furniture polishes, pet sprays and shampoos, insect sprays, silver polish
Flammable/ignitable	easily catches fire	oil-based paints, lacquers, paint strippers & thinners
Explosive	explodes through exposure to heat or pressure	aerosols and metal polishes
Reactive	generates excessive heat, noxious fumes, explosions when mixed with some other substances	ammonia/bleach

(Source: AVR, Vermont Agency of Natural Resources).

What is the best way to dispose of household hazardous waste?

Household hazardous wastes could contaminate groundwater and should not be disposed of at home. Do not dump products on the ground, down sewers, drains or toilets. They should not be disposed of with household trash either. Hazardous products could pose health problems for sanitation workers and could contribute to groundwater contamination if disposed in a landfill. Household hazardous waste is best disposed of through professional collection programs.

My town does not have a household hazardous wastes collection program. What can I do?

Collection and disposal of household hazardous waste is very expensive. Several collection programs organized in Maine reported costs ranging from $125-300 per participant. A one-time, half-day collection event serving only 1-2% of the households cost one town $30,000. To avoid expensive disposal, household hazardous waste reduction is critical.

What can I do to reduce household hazardous waste?

- Audit your house to see what hazardous materials you already have. Buy only what you need. Use it up before discarding the container.
- Buy smaller amounts to prevent deterioration of product. Do not use the product too often or in excessive amounts. Avoid splashing, skin contact and breathing of fumes. Use in well-ventilated areas. Use personal protection such as gloves or masks.
- Give leftovers to a friend or neighbor to use up.
- Read labels carefully; look for words that indicate hazardous products, such as: CAUTION, WARNING, DANGER, TOXIC, CORROSIVE, FLAMMABLE, CONTENTS UNDER PRESSURE and avoid these products.
- Store materials separately, in their original containers, and clearly labeled. Store the product safely away from children. DO NOT MIX SUBSTANCES.
- Know what you're buying and decide if it is the safest product for the job. Always use nonhazardous alternatives when possible:

Safer Alternatives for Household Hazardous Products

Aerosols	~ use non-aerosol products ~ deodorants - rolls-ons, creams, sticks ~ hair sprays - setting lotions, gels, pump sprays ~ shaving cream - brush and shaving soaps ~ cooking sprays - cooking oils - cleaners - pump sprays
Air Freshener	~ leave open box of baking soda in room ~ set out dish of vinegar ~ add cloves, cinnamon to boiling water, simmer
All Purpose Cleaner	~ mix 1 qt. warm water, 1 tsp. liquid soap, boric acid (borax), lemon juice and/or vinegar. Make stronger according to the job to be done.
Ant Control	~ pour a line of cream of tartar at place where ants enter house ~ sprinkle red chili, paprika or dried peppermint where ants enter
Carpet Cleaner	~ use soap-based, non-aerosols ~ clean stains immediately with club soda ~ sprinkle cornstarch and vacuum ~ rub dry baking soda into grease ~ combine equal parts vinegar & water to remove winter salt residue
Chlorine Bleach	~ use safer & less destructive dry bleach or borax to whiten
Disinfectant	~ 1/2 c. borax in 1 gallon water
Drain Opener	~ plunger or mechanical snake ~ handful of baking soda and 1/2 c. vinegar, followed by boiling water to prevent clogging, flush drain weekly with boiling water ~ use enzymatic biological drain cleaner
Fabric Softener	~ rinse cotton & wool blankets with 2 c. white vinegar added to washer

Furniture Polish	~ wipe with mixture of 1 tsp. lemon oil in 1 pint mineral or vegetable oil ~ 3 parts olive oil, 1 part vinegar ~ 1 part lemon juice, 2 parts vegetable oil
Floor Cleaner	~ mop with 1 c. white vinegar with 2 gallons water ~ polish with club soda
Glue or Decal Remover	~ soak in white vinegar
Hair Colors	~ plant-derived rinses
Insecticides	~ select pest resistant plants ~ plant garlic cloves at 1 foot intervals in gardens ~ use traps or spray soaps ~ blend 6 cloves crushed garlic, 1 minced onion, 1 T. dried hot pepper, and 1 tsp. pure soap in 1 gallon hot water; let sit 1-2 days; strain; spray on plants
Laundry Spot Remover	~ make paste of washing soda and water ~ club soda, lemon juice, and hot water ~ borax and cold water ~ deodorant stains - rub lightly with white vinegar and launder as usual
Metal Polish	~ brass - Worcestershire sauce ~ copper - vinegar and salt; or lemon and salt ~ silver - soak in 1 qt. warm water with 1 tsp. baking soda, 1 tsp. salt, and piece of aluminum foil; or rub with ammonia and soft cloth ~ stainless steel - wash w/1 qt. warm water and 3 T baking soda; rinse w/hot water ~ chrome - apple cider vinegar or baking soda and soft cloth ~ pewter - rub with fine steel wool dipped in olive oil, wash in soapy water and dry; or polish with cabbage leaves
Mildew or Soap Scum	~ 1/4 c. baking soda, 1/2 c vinegar and warm water
Mothballs	~ cedar chips, lavender flowers, rosemary, mint, white peppercorns
Oven Cleaner	~ sprinkle salt and baking soda on spill while still warm ~ scour with steel wool and baking soda ~ for baked on grease, wipe with ammonia, let sit overnight; then scrub with baking soda
Stain Remover	~ clean stains immediately with club soda ~ wine or coffee stains - put stained materials in glass, enamel, or stainless steel pot; Cover with mixture of milk and water; bring to boil and simmer 2-4 minutes until stain has disappeared ~ coffee and tea - equal parts moist salt and vinegar; or baking soda solution of 3 T. baking soda & 1 qt. water
Starch	~ 1 T. cornstarch, 1 pint cold water ~ non-aerosol sprays
Window Cleaner	~ use 1/2 c. vinegar in 1 gallon warm water ~ use newspaper to dry glass

Are any household hazardous wastes recyclable?

In some cases, batteries, waste oil and old paint can be recycled. Button batteries, such as mercury-oxide, silver-oxide and lithium, can be recycled and may even produce revenues. Nickel-cadmium batteries, the rechargeable kind found in small appliances, are recyclable for a fee. Other more common household batteries are not recyclable. Waste oil can be re-refined into lubrication or motor oils or reprocessed into industrial heating fuels. However, the economics of refining vs. the cost of virgin oil discourages recycling. Latex or water-based paints can be reused or recycled through paint exchanges or community-based collection programs. Solvent-based paints are not recyclable and should be disposed through proper household hazardous waste programs.

What can the State Planning Office's Waste Management and Recycling Program do to help us?

The office can provide information and guidance on conducting household hazardous waste collection days. Funding assistance from the office for these collection projects is extremely limited.

Where can I get more information about household hazardous wastes:

Chemical Manufacturer's Association. Telephone: 1-800-CMA-8200. Can provide information about chemical properties of specific products. Give them the product name and manufacturer.

Greenpeace. Toxics: Everyone's Guide to Toxics in the Home. 1436 U St., Washington, D.C. 20009.
Maine Department of Environmental Protection, Bureau of Oil & Hazardous Materials, #287-2651.

Maine State Planning Office, Waste Management and Recycling Program. Fact Sheets: Household Batteries, Waste Oil Recycling, and Waste Paint. State House Station #38, Augusta, ME 04333, #287-8050.

Maine Poison Control Center. Telephone: 1-800-442-6305. (Let them know your question is not an emergency so they may put you on hold if necessary.)

Natural Resources Council of Maine. Booklet: Home Safe Home, and Brochure/Poster: The World is Full of Toxic Waste: Your Home Shouldn't Be. 271 State Street, Augusta, 04330 (send self-addressed, stamped business envelope).

University of Maine Cooperative Extension. Brochure: Alternatives to Household Toxics and Brochure: You Use Hazardous Products...But Do You Know How to Dispose of Them?. Contact your local county extension office.

U.S. Environmental Protection Agency, Brochure: Be an Environmentally Alert Consumer. 1-800-424-9346.

For more information, please contact:
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Waste Management and Recycling Program
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Augusta, Maine 04333-0038
(207) 287-8050 or 1-800-662-4545
or visit us online at: **www.recyclemaine.com**

Printed on Recycled Paper

December 1998